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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Application Number	10/713,898
Filing Date	October 18, 2002
First Named Inventor	David Charles Schwartz, et al.
Art Unit	
Examiner Name	
Attorney Docket Number	960296.99047

Sheet 1 of 2

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
SKM ↓ ↓ ↓		US- 6,123,819	09-26-2000	Peeters	
		US- 2002/0037499 A1	03-28-2002	Quake et al.	
		US- 2002/0137218 A1	09-26-2002	Mian et al.	
		US- 2002/0081744 A1	06-27-2002	Chan et al.	
		US- 2003/0165964	08-04-2003	Hannah	
		US- 6,438,279 B1	08-20-2002	Craighead et al.	
		US- 6,610,256	08-26-2003	Schwartz	
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FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
		Country Code ³ * Number * Kind Code ⁴ (if known)				
SKM		WO 94/18218	08-18-1994	Seq. Ltd.		
V		WO 00/09757	02-24-2000	U.S. Genomics		
		PCT Int'l Search Report				

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/Stephanie Mummert/ (10/12/2006)

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OTHER PRIOR ART—NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
SKM		Chih-Ming Ho, "Fluidics - The Link Between Micro and Nano Sciences and Technologies", Proceedings of the IEEE 14th Annual International Conference On Microelectro Mechanical Systems. MEMS 2001. Interlaken, Switzerland, Jan 21-25.	
SKM		2001, IEEE International Micro Electro Mechanical Systems Conference, New York, NY: IEEE, US, vol. CONF. 14, (01-21-2001), pgs 375-384, XP010534628 ISBN: 0-7803-5998-4, pg 378-379.	
SKM		Unger M A Et Al: "Monolithic Microfabricated Valves and Pumps by Multilayer Soft Lithography", Science, American Association For The Advancement Of Science, US, vol. 288, 04/07/2000, pgs. 113-116, XP002192277 ISSN: 0036-8075 Figure 1.	
SKM		Stix, Gary; "Thinking Big-A Harvard Medical School dropout aims to usher in the personal-genomics ear," Innovations, Scientific American, June 2002, pgs. 30-31.	
SKM		Stikeman, Alexandra, "Nanobiotech Makes The Diagnosis," Technology Review, May 2002, pgs. 61-66.	

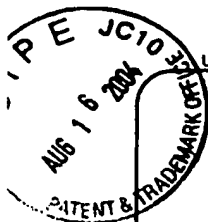
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Prior Art Cited in US. PATENT NO. 5,720,928



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SKM		US- 4,473,452	Sep., 1984	Cantor et al.	
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		US- 4,737,251	Apr., 1988	Carle et al.	
		US- 4,767,700	Aug., 1988	Wallace	
		US- 4,870,004	Sep., 1989	Conroy et al.	
		US- 5,059,294	Oct., 1991	Lizardi	
		US- 5,079,169	Jan., 1992	Chu et al.	
		US- 5,314,829	May, 1994	Coles	436/165
		US- 5,380,833	Jan., 1995	Urdea	
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SKM		FR 2605472	Apr., 1988	Alain Bouillet		
		WO 84/02001	May, 1984	Trustees of Columbia Unvers		
		WO 87/01955	Sep., 1987	Washington University		

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Sheet 2 of 9	Attorney Docket Number	960296.99047	

OTHER PRIOR ART—NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
SKM		Chattoraj et al., "DNA Condensation with Polyamines", J. Mol. Biol. 121, (1978), pp.327-337.	
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✓		Koob et al., 1992, "RecA-AC: single-site cleavage of plasmids and chromosomes at any predetermined restriction site" Nucleic Acids Res. 20:5831.	

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		Application Number	10/713,898
		Filing Date	October 16, 2002
		First Named Inventor	David Charles Schwartz, et al.
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SKM		Zenhausen et al., 1992, "Imaging of DNA by Scanning Force Microscopy", J. Struct. Biol. 108: 69-73.	
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SKM		Campbell et al., 1991, "Generation of a nested series of interstitial deletions in yeast artificial chromosomes carrying human DNA", Proc. Natl. Acad. Sci. USA 88:5744.	
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		Smith et al., 1989, "Observation of Individual DNA Molecules Undergoing Gel Electrophoresis", Science 242: 203.	
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Application Number	10/713,898
				Filing Date	October 18, 2002
				First Named Inventor	David Charles Schwartz, et al.
				Group Art Unit	
				Examiner Name	
Sheet	7	of	9	Attorney Docket Number	960296.99047

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
SKM		Chattoraj et al., 1978, "DNA Coordination with polyamines", J. Mol. Biol. 121: 327.	
		Ohi et al., 1978, "Mapping of Mitochondria 4S RNA genes in Xenopus laevis by electron microscopy", J. Mol. Biol. 121: 299.	
		Gurrieri et al., 1990, "Imaging of kinked configurations of DNA molecules undergoing orthogonal field alternating gel electrophoresis by fluorescence microscopy", Biochemistry 29: 3396-3401.	
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		Filing Date	October 18, 2002
		First Named Inventor	David Charles Schwartz, et al.
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Sheet 8 of 9	Attorney Docket Number	960296.99047	

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SKM		Yanagida et al., "Dynamic Behaviors of DNA Molecules in Solution...", Cold Sprg. Hrbr. Symp. Quant. Biol. 47, pp. 177-187, 1983.	
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		Gerlach et al. (1984) Cytometry 5:562-571.	
		K. R. Khrapko et al., "A Method For DNA Sequencing By Hybridization With Oligonucleotide Matrix", J. DNA Sequencing and Mapping, 1991, vol. 1, pp. 375-388.	

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Prior Art Cited in U.S. Patent No. 6,294,136

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Sheet 1 of 8

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First Named Inventor	David Charles Schwartz, et al.
Art Unit	
Examiner Name	
Attorney Docket Number	960296.99047

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
SKM ↓		US- 4,473,452	Sep., 1984	Cantor et al.	204/180
		US- 4,695,548	Sep., 1987	Cantor et al.	435/179
		US- 4,737,251	Apr., 1988	Carle et al.	204/182
		US- 4,767,700	Aug., 1988	Wallace	435/6
		US- 4,870,004	Sep., 1989	Conroy et al.	435/6
		US- 5,059,294	Oct., 1991	Lizardi	204/458
		US- 5,079,169	Jan., 1992	Chu et al.	436/174
		US- 5,314,829	May, 1994	Coles	436/165
		US- 5,380,833	Jan., 1995	Urdea	536/22
		US- 5,720,928	Feb., 1998	Schwartz	422/186
		US- 5,985,549	Nov., 1999	Singer et al.	435/6
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FOREIGN PATENT DOCUMENTS

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		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				
SKM ↓		FR 2605472	Apr., 1988	Alain Bouillet		
		WO 84/02001	May, 1984	Trustees of Columbia Univers		
		WO 87/01955	Sep., 1987	Washington University		

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		First Named Inventor	David Charles Schwartz, et al.		
		Art Unit			
		Examiner Name			
Sheet	2	of	8	Attorney Docket Number	960296.99047

OTHER PRIOR ART–NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
SKM		Allison et al., 1992, "Immobilization of DNA for Scanning Probe Microscopy", Proc. Natl. Acad. Sci. USA 89: 10129-10133.	
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SKM		Chumakov et al., 1992, "Continuum of Overlapping Clones Spanning the Entire Human Chromosome 21q", Nature 359: 380-387.	
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		Gosule and Schellman, 1978, "DNA Condensation with Polyamines I. Spectroscopic Studies", J. Mol. Biol. 121: 311-326.	
↓		Guo et al., 1993, "Sizing of Large DNA Molecules by Hook Formation in a Loose Matrix", J. Biomol. Struct. and Dynam. 11: 1-10.	

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		First Named Inventor	David Charles Schwartz, et al.
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↓		Perkins et al., 1994, "Direct Observation of Tube-like Motion of a Single Polymer Chain", Science 264: 819-822.	

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SKM		Poddar and Maniloff, 1986, "Chromosome Analysis by Two-Dimensional Fingerprinting", Gene 49: 93-102.	
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Examiner Signature	/Stephanie Mummert/ (10/12/2006)	Date Considered	10/12/2006
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	Application Number		10/713,898
	Filing Date		October 18, 2002
	First Named Inventor		David Charles Schwartz, et al.
	Group Art Unit		
	Examiner Name		
Sheet	7	of	8
	Attorney Docket Number		960296.99047

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
SKM		Southern, 1975, "Detection of Specific Sequences among DNA Fragments Separated by Gel Electrophoresis", J. Mol. Biol. 98: 503-517.	
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		Application Number	10/713,898
		Filing Date	October 18, 2002
		First Named Inventor	David Charles Schwartz, et al.
		Group Art Unit	
		Examiner Name	
Sheet	8	of	8
		Attorney Docket Number	960296.99047

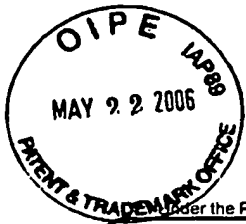
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SKM		Houseal et al., 1989, "Real-Time Imaging of Single DNA Molecules with Fluorescence Microscopy", Biophys. J. 56: 507-516.	

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Application Number	10/713,898
Filing Date	10/18/2002
First Named Inventor	David C. Schwartz
Art Unit	1732
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